

IN THE CLAIMS

- 1-64. (Cancelled)
65. (New) A pharmaceutical composition comprising a monovalent antibody fragment which binds *in vivo* to human platelet glycoprotein GPIb without incurring thrombocytopenia.
66. (New) The pharmaceutical composition according to claim 65, wherein said fragment is an Fab fragment or a single variable domain.
67. (New) The pharmaceutical composition according to claim 65 wherein the variable region of said fragment is encoded by a sequence comprising a sequence having at least 60% sequence identity with SEQ ID NO: 1.
68. (New) The pharmaceutical composition according to claim 65, wherein the variable region of said fragment is encoded by a sequence comprising a sequence having at least 60% sequence identity with SEQ ID NO: 2.
69. (New) The pharmaceutical composition according to claim 65, wherein the variable region of said fragment comprises a sequence having at least 60% sequence identity with SEQ ID NO: 3.
70. (New) The pharmaceutical composition according to claim 65, wherein the variable region of said fragment comprises a sequence having at least 60% sequence identity with SEQ ID NO: 4.
71. (New) The pharmaceutical composition according to claim 65, wherein said monoclonal antibody is produced by the cell line deposited with the Belgian Coordinated Collections of Microorganisms, under accession number LMBP 5108CB.
72. (New) A monovalent antibody fragment which binds *in vivo* to human platelet glycoprotein GPIb, and prevents the binding of von Willebrand factor to human platelet glycoprotein GPIb.
73. (New) The fragment of claim 72, which is an F_{ab} fragment or a single variable domain.
74. (New) The fragment of claim 72, which inhibits platelet adhesion and/or inhibits platelet activation under high shear conditions and/or inhibits platelet aggregation under high shear conditions.
75. (New) The fragment of claim 72, wherein said monoclonal antibody is produced by the cell line deposited with the Belgian Coordinated Collections of Microorganisms, under accession number LMBP 5108CB.
76. (New) The fragment according to claim 72 wherein the variable region of said fragment

is encoded by a sequence comprising a sequence having at least 60% sequence identity with SEQ ID NO: 1.

77. (New) The fragment according to claim 72, wherein the variable region of said fragment is encoded by a sequence comprising a sequence having at least 60% sequence identity with SEQ ID NO: 2.
78. (New) The fragment according to claim 72, wherein the variable region of said fragment comprises a sequence having at least 60% sequence identity with SEQ ID NO: 3.
79. (New) The fragment according to claim 72, wherein the variable region of said fragment comprises a sequence having at least 60% sequence identity with SEQ ID NO: 4.
80. (New) A monoclonal antibody produced by the cell line deposited with the Belgian Coordinated Collections of Microorganisms, under accession number LMBP 5108CB.
81. (New) A cell line, capable of producing an antibody directed against GP1b deposited with the Belgian Coordinated Collections of Microorganisms, under accession number LMBP 5108CB.
82. (New) A humanized antibody fragment derivable from the cell line of claim 81.